- 66. L. GLACIALIS Hagen. (17), 1 & July 22, 1939. In the field, this species may be distinguished from other species in the genus by the large size, the large amount of red on the thorax and base of the abdomen, and the reddish stigma.
- 67. L. HUDSONICA (Selys). (11), 1 & June 17, 1939, in clearing in woods; (17), 8 & and 1 & June 21, 1938, and 1 & June 28, 1939; (24), 2 & July 6, 1939 (by Donald Cooper); (25), 3 & July 12 and 2 & July 17, 1939, along road near swamp.
- 68. L. INTACTA (Hagen). Fairly common along marshy shores and in swamps. Taken or observed at (5, 8, 9, 10, 11, 13, 17, 21, 24, 26, 27, and 29), June 18 to July 19.
- 69. L. PROXIMA Calvert. Rare in 1938, fairly common in 1939. Taken at (10, 17, 21, 24, 25, and 29), June 28 to Aug. 14.
- 70. Pantala flavescens (Fabricius). (11), 1 & July 17, 1939 (by Frank Jackson); (16), seen Aug. 27, 1939; (20), seen July 19, 1939.

New or Little-Known Neotropical Polistes (Hymenoptera, Vespidae).

By J. Bequaert, Museum of Comparative Zoology, Cambridge, Massachusetts.

1. Polistes major var. (or subsp.) weyrauchi, new. § and Worker.—Head reddish chestnut-brown. Thorax reddish chestnut-brown over most of pronotum, mesonotum, scutellum and a spot in upper part of mesopleura; remainder black, the postscutellum blotched with russet. Abdomen mostly reddish chestnut-brown; basal two-thirds of first tergite, base of second tergite, and most of first to third sternites, black. Legs chestnut-brown; coxae and most of femora black; mid and hind tarsi orange. Antennae reddish-brown; basal two-thirds of flagellum blackish. Wings strongly purplish-black; stigma russet.

¿.—Very similar to the female.

Holotype and paratype, females from one nest, Valle Chanchamayo, Peru, 800 m. (W. Weyrauch). Allotype, male, Mt. San Lorenzo, Santa Marta, 5,500 ft., Colombia (G. Salt). Paratypes: Cerro Quemado, San Lorenzo Mt., Colombia,

one male (H. L. Viereck); Bonda, River Manzanares, 7 miles east of Santa Marta, Colombia, nine females and one male (Herbert H. Smith).—Holotype, allotype and paratypes at Museum of Comparative Zoölogy, Cambridge, Mass.; paratypes also at Carnegie Mus., Pittsburgh, at Academy of Natural Sciences, Philadelphia, and at U. S. Nat. Museum.

Structurally and in size like typical *P. major* Palisot de Beauvois, as characterized in Ent. News, XLVII, 1936, p. 8. There is a mere trace of prepectal suture in the two females from Peru and in one of the males from Colombia. In the other specimens from Colombia, however, the suture is well-marked.

This new form is nearest to *P. major* var. *castaneicolor* J. Bequaert, to which I had originally referred two of the males from Colombia (Ent. News, XLVII, 1936, p. 13). The discovery by Dr. Weyrauch of additional specimens and of the nest, makes it advisable to distinguish the South American form by name. It is homeochromic with certain specimens of the typical form of *P. canadensis*, with which I confused the Peruvian females until Dr. Weyrauch pointed out to me (*in litt.*) that nest and larvae were different.

The var. castancicolor is restricted to Mexico, southern Arizona and southern New Mexico.

- 2. Polistes major var. (or subsp.) colombianus, new.
- Q (or Worker)—Body almost entirely chrome-yellow, with only the following parts cinnamon-brown: antennae (strongly infuscate above over most of flagellum); mandibles; a transverse stripe on vertex, in the ocellar region; a median line on mesonotum, widened anteriorly and posteriorly; tegulae; sternum; most of sutures of thorax (that between mesonotum and scutellum broadly blackish); legs, except for large yellow spots on coxae and on tips of femora; and broad bases of first and second abdominal segments. Wings as in typical form.

Holotype female, Valparaiso, Dept. Magdalena, 2,500 ft., Соломыл. Mus. Comp Zoöl., Cambridge, Mass.

In structure and size like typical *P. major*, scarcely with a trace of the prepectal suture. It is the most xanthic variant of the species, homeochromic with *Polistes carnifex* var. boli-

viensis J. Bequaert, which occurs in the same general region.1

- 3. Polistes versicolor var. (or subsp.) xanthogaster, new.
- and Worker.—Head yellow; vertex, occiput, frons to near base of antennae (entering ocular sinuses), spots between antennae and clypeus, black; most of outer orbits ferruginous; antennae ferruginous; middle portion of flagellum black. Thorax black; most of pronotum and scutellum ferruginous; anterior and posterior margins of pronotum, tegulae, most of postscutellum, two short stripes on propodeum, articular valvulae, and a spot on upper part of mesopleura, yellow (sometimes slightly orange). Coxae black; femora black basally, ferruginous medially and yellow at tips; tibiae and tarsi ferruginous, hind tarsi somewhat yellowish. Abdomen mostly yellow; only the bases of the segments black, turning ferruginous toward the yellow areas, which are slightly notched by ferruginous on the second and third tergites, more broadly so on the first tergite. Wings as in typical form.
- ¿.—Similar to the female; but one specimen has two ferruginous lines on the mesonotum and ferruginous (instead of yellow) stripes on propodeum, while the other lacks all trace of yellow stripes on the propodeum.

Holotype female, allotype male and two paratypes (male and female), Cochabamba, Bolivia (R. G. Harris). Mus. Comp. Zoöl., Cambridge, Mass.

In my key to the varieties of *P. versicolor* (1934, Rev. de Entomologia, IV, pp. 148-149), this will run out to var. *peruvianus*; but it is readily separated from that and other forms by the broad apical yellow bands of most of the tergites and sternites.

- 4. Polistes versicolor var. (or subsp.) willei, new.
- &.—Head mostly yellow; upper half of frons, vertex, occiput and hind half of outer orbits black; antennae ferruginous, slightly orange basally, the scape with a blackish spot above. Thorax black, with most of the dorsal area of the pronotum, tegulae, most of scutellum, two small dots on post-scutellum, and small spots on the mesosternum, yellow. Legs

¹I have seen many specimens of *P. carnifex* var. boliviensis from Colombia: Muzo, Dept. Boyacá; Porcecito, Rio Porce, Dept. Antioquia; Cacaguelito near Sa. Marta, Dept. Magdalena. These have generally a median longitudinal cinnamon-brown stripe over the yellow mesonotum.

black; small spots on under side of fore and mid coxae, narrow tips of femora, a line on underside of fore and mid femora and most of fore tibiae, yellow; tarsi ferruginous. Abdomen: first tergite black, with a broad apical yellow margin, divided medially by a brownish line; second tergite yellow, with a narrow black base protruding behind triangularly in the middle and more broadly on the sides; remaining tergites yellow; first sternite black; second and third sternites black, with broad yellow apical margins (bearing a blackish spot on each side); remaining sternites yellow. Wings as in typical form.

Holotype male, Cuczo, Peru (G. N. Wolcott). Mus. Comp. Zoöl., Cambridge, Mass.²

This wasp is strikingly different from all other Neotropical *Polistcs* in the contrast between the almost entirely yellow abdomen and the mostly black thorax. I am unable to find structural characters to differentiate it from the males of the other color forms of *P. versicolor*.

- 5. Polistes canadensis var. (or subsp.) satanulus, new
- Q (or Worker).—Entirely shiny coal-black, except for the flagellum which is mostly ferruginous, darker above. Wings subhyaline, slightly suffused with ferruginous, somewhat darker anteriorly; veins of basal two-thirds and stigma brownish-black, those of apical third pale ferruginous.

Holotype female, Joinville, State of Sa Catharina, Brazil (F. Schade). Mus. Comp. Zoöl., Cambridge, Mass.

Perfectly homeochromic with *Polistes melanosoma* de Saussure, *Polistes deceptor* Schulz, and *Gymnopolybia angulata* (Fabricius). It was probably confused thus far with *P. melanosoma*, which no doubt occurs in the same territory. Specimens of *G. angulata* were taken by Mr. Schade at Joinville the same day as the type of *satanulus*.

The var. satanulus is the only color form of *P. canadensis* in which the legs are entirely black (including the hind tarsi).

6. Polistes Paraguayensis Bertoni.

Polistes consobrinus (?) A. de Winkelried Bertoni, 1918, Anal. Cientif. Paraguayos, (2), No. 3, p. 227 (\$\ddot\delta\$; Puerto

² This interesting wasp was received from Dr. J. E. Wille, of the Estacion Experimental Agricola de la Molina, near Lima, Peru. I wish to thank Dr. Wille for permission to deposit the type at the Museum of Comparative Zoölogy.

Bertoni, Paraguay and Ihgatimi, Matto Grosso, Brazil). Not of H. de Saussure, 1858.

Polistes paraguayensis A. de Winkelried Bertoni, 1921, Rev. Soc. Cientif. Paraguay, I, pt. 1, p. 12 (based on his supposed Polistes consobrinus of 1918).

P. consobrinus de Saussure is now recognized as a melanic variant of P. versicolor (Olivier). A. de Winkelried Bertoni pointed out that his supposed consobrinus, which he fully described in 1918, was structurally different from P. versicolor. I have one female and one male from Bolivia which agree well with Bertoni's account. They are of about the size and color of P. versicolor var. consobrinus; but in the male the clypeus is very broadly separated from the inner orbits, while it touches over a short distance in the female. There is a curious superficial resemblance between these specimens and some fuscatus var. nestor, of North America. The structure of the clypeus, however, separates paraguayensis from fuscatus; while, in the male, there is no median tubercle on the depressed area of the last sternite. Owing to the absence of prepectal suture and the presence of a complete median mesepisternal groove, P. paraguayensis belongs in the group of P. canadensis.

Undescribed Species of Crane-Flies from the Eastern United States and Canada (Dipt.: Tipulidae). Part VI

By Charles P. Alexander, Massachusetts State College, Amherst, Massachusetts.

The crane-flies discussed at this time were derived from various sources that are acknowledged in connection with each species. The preceding part under this general title was published in Entomological News, vol. 40: 44-49; 1929.

Tipula (Oreomyza) broweri n. sp.

Belongs to the *marmorata* group; allied to *nebulipennis*; femora obscure yellow, the tips blackened, preceded by a subequal clearer yellow ring; wings subhyaline, conspicuously clouded with brown or grayish brown; cell *C* clear, cell *Sc*